

4982-13-SEQ-LISTING.txt
SEQUENCE LISTING

<110> CropDesign N.V.

<120> Plants having modified growth characteristics and method for making the same

<130> 4982-13

<140> 10/553,656

<141> 2005-10-14

<150> EP 03076086.2

<151> 2003-04-14

<160> 32

<170> PatentIn version 3.3

<210> 1

<211> 336

<212> DNA

<213> *Arabidopsis thaliana*

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gcacccggcga tgaagaatca gtacgaggct tcaggggaga gtaacaacgc tgagaacgat 240
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<210> 2
<211> 81
<212> PRT
<213> *Arabidopsis thaliana*

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Gly Asn Gly Cys Gly Gly Cys Lys Met Tyr Pro Asp Leu Gly Phe Ser
20 25 30

Gly Glu Thr Thr Thr Glu Thr Phe Val Leu Gly Val Ala Pro Ala
35 40 45

Met Lys Asn Gln Tyr Glu Ala Ser Gly Glu Ser Asn Asn Ala Glu Asn
50 55 60

Asp Ala Cys Lys Cys Gly Ser Asp Cys Lys Cys Asp Pro Cys Thr Cys
Page 1

Lys

<210> 3
 <211> 545
 <212> DNA
 <213> Arabidopsis thaliana

<220>
 <221> misc_feature
 <222> (331)..(331)
 <223> n is a, c, g, or t

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<210> 4
 <211> 81
 <212> PRT
 <213> Arabidopsis thaliana

<400> 4
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 1 5 10 15

Gly Asn Gly Cys Gly Gly Cys Lys Met Tyr Pro Asp Leu Gly Phe Ser
 20 25 30

Gly Glu Thr Thr Thr Glu Thr Phe Val Leu Gly Val Ala Pro Ala
 35 40 45

Met Lys Asn Gln Tyr Glu Ala Ser Gly Glu Ser Asn Asn Ala Glu Ser
 50 55 60

4982-13-SEQ-LISTING.txt

Asp Ala Cys Lys Cys Gly Ser Asp Cys Lys Cys Asp Pro Cys Thr Cys
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Lys

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| <211> | 53 | |
| <212> | DNA | |
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| <212> | DNA | |
| <213> | Artificial sequence | |
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| catccaccta ctttagtggc aatcgggcta aataaaaaag agtcgtacacatcgat | | 180 |
| tttcccttagt aatataatgg gaaaatggaa tcattatgc tttagatata cgttcacatc | | 240 |
| tctgtcatga agttaaaatata ttcgaggtag ccataattgt catcaaactc ttcttgaata | | 300 |
| aaaaaatctt tcttagctgaa ctcaatgggt aaagagagag atttttttta aaaaaataga | | 360 |
| atgaagatat tctgaacgtta ttggcaaga tttaacata taattatata atttatagtt | | 420 |
| ttgtgcattc gtcataatcgcc acatcattaa ggacatgtct tactccatcc caattttat | | 480 |
| tttagtaattt aagacaatttgc acttattttt attattttatc tttttcgtat tagatgc | | 540 |
| gtacttacgc acacacttgc tgctcatgtg catgtgtgag tgcacccctt caatacacgt | | 600 |
| tcaacttagca acacatcttcaatcactc gccttatttaa tacatttagg tagcaatatc | | 660 |

4982-13-SEQ-LISTING.txt

4982-13-SEQ-LISTING.txt

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| tctgttccaa attaaaattc attttacact ttaataatgg ttatacaata attgatatat | 2760 |
| gttttctgtt atgtctaat ttgttatcat cccggcggtc ttctaggat aacaggtaa | 2820 |
| ttatataccct ctagacaaca cacaacaaat aagagaaaaa acaaataata ttaatttag | 2880 |
| aatgaacaaa aggaccatat cattcattaa ctctctcca tccatttcca tttcacagt | 2940 |
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<210> 8
<211> 11
<212> PRT
<213> Artificial sequence

<220> Type 2 N-terminal domain (synthetic)

<400> 8

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<210> 9
<211> 16
<212> PRT
<213> Artificial sequence

<220> consensus sequence

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<223> / replace = "Ser" / replace = "Ala"

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<223> / replace = "Ala" / replace = "Ser"

<220>
<221> VARIANT
<222> (15)..(15)
<223> / replace = "Gin" / replace = "Ser"

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4982-13-SEQ-LISTING.txt

Met Ser Cys Cys Gly Gly Asn Cys Gly Cys Gly Thr Gly Cys Lys Cys
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<210> 10
 <211> 45
 <212> PRT
 <213> Arabidopsis thaliana

<400> 10

Met Ala Asp Ser Asn Cys Gly Cys Gly Ser Ser Cys Lys Cys Gly Asp
 1 5 10 15

Ser Cys Ser Cys Glu Lys Asn Tyr Asn Lys Glu Cys Asp Asn Cys Ser
 20 25 30

Cys Gly Ser Asn Cys Ser Cys Gly Ser Asn Cys Asn Cys
 35 40 45

<210> 11
 <211> 45
 <212> PRT
 <213> Arabidopsis thaliana

<400> 11

Met Ala Gly Ser Asn Cys Gly Cys Gly Ser Ser Cys Lys Cys Gly Asp
 1 5 10 15

Ser Cys Ser Cys Glu Lys Asn Tyr Asn Lys Glu Cys Asp Asn Cys Ser
 20 25 30

Cys Gly Ser Asn Cys Ser Cys Gly Ser Ser Cys Asn Cys
 35 40 45

<210> 12
 <211> 45
 <212> PRT
 <213> Brassica napus

<400> 12

Met Ala Gly Ser Asn Cys Gly Cys Gly Ser Gly Cys Lys Cys Gly Asp
 1 5 10 15

Ser Cys Ser Cys Glu Lys Asn Tyr Asn Thr Glu Cys Asp Ser Cys Ser
 20 25 30

Cys Gly Ser Asn Cys Ser Cys Gly Asp Ser Cys Ser Cys
 35 40 45

<210> 13
 <211> 73

4982-13-SEQ-LISTING.txt

<212> PRT
<213> Oryza sativa

<400> 13

Met Ser Cys Ser Cys Gly Ser Ser Cys Ser Cys Gly Ser Asn Cys Ser
1 5 10 15

Cys Gly Lys Lys Tyr Pro Asp Leu Glu Glu Lys Ser Ser Ser Thr Lys
20 25 30

Ala Thr Val Val Leu Gly Val Ala Pro Glu Lys Lys Gln Gln Phe Glu
35 40 45

Ala Ala Ala Glu Ser Gly Glu Thr Ala His Gly Cys Ser Cys Gly Ser
50 55 60

Ser Cys Arg Cys Asn Pro Cys Asn Cys
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<210> 14

<211> 75

<212> PRT

<213> Pisum sativum

<400> 14

Met Ser Gly Cys Gly Cys Gly Ser Ser Cys Asn Cys Gly Asp Ser Cys
1 5 10 15

Lys Cys Asn Lys Arg Ser Ser Gly Leu Ser Tyr Ser Glu Met Glu Thr
20 25 30

Thr Glu Thr Val Ile Leu Gly Val Gly Pro Ala Lys Ile Gln Phe Glu
35 40 45

Gly Ala Glu Met Ser Ala Ala Ser Glu Asp Gly Gly Cys Lys Cys Gly
50 55 60

Asp Asn Cys Thr Cys Asp Pro Cys Asn Cys Lys
65 70 75

<210> 15

<211> 75

<212> PRT

<213> Medicago sativa

<400> 15

Met Ser Gly Cys Asn Cys Gly Ser Ser Cys Asn Cys Gly Asp Asn Cys
1 5 10 15

4982-13-SEQ-LISTING.txt

Lys Cys Asn Ser Arg Ser Ser Gly Leu Gly Tyr Leu Glu Gly Glu Thr
 20 25 30

Thr Glu Thr Val Ile Leu Gly Val Gly Pro Ala Lys Ile His Phe Glu
 35 40 45

Gly Ala Glu Met Gly Val Ala Ala Glu Asp Gly Gly Cys Lys Cys Gly
 50 55 60

Asp Ser Cys Thr Cys Asp Pro Cys Asn Cys Lys
 65 70 75

<210> 16

<211> 80

<212> PRT

<213> Brassica oleracea

<400> 16

Met Ser Cys Cys Gly Gly Asn Cys Gly Cys Gly Ser Gly Cys Lys Cys
 1 5 10 15

Gly Asn Gly Cys Gly Gly Cys Lys Met Tyr Pro Asp Leu Gly Phe Ser
 20 25 30

Gly Glu Leu Thr Thr Thr Glu Thr Phe Val Phe Gly Val Ala Pro Thr
 35 40 45

Met Lys Asn Gln His Glu Ala Ser Gly Glu Gly Val Ala Glu Asn Asp
 50 55 60

Ala Cys Lys Cys Gly Ser Asp Cys Lys Cys Asp Pro Cys Thr Cys Glu
 65 70 75 80

<210> 17

<211> 77

<212> PRT

<213> Arabidopsis thaliana

<400> 17

Met Ser Cys Cys Gly Gly Ser Cys Gly Cys Gly Ser Ala Cys Lys Cys
 1 5 10 15

Gly Asn Gly Cys Gly Gly Cys Lys Arg Tyr Pro Asp Leu Glu Asn Thr
 20 25 30

Ala Thr Glu Thr Leu Val Leu Gly Val Ala Pro Ala Met Asn Ser Gln
 35 40 45

Tyr Glu Ala Ser Gly Glu Thr Phe Val Ala Glu Asn Asp Ala Cys Lys
 Page 8

50

55

60

Cys Gly Ser Asp Cys Lys Cys Asn Pro Cys Thr Cys Lys
65 70 75

<210> 18
<211> 80
<212> PRT
<213> Petunia hybrida
<400> 18

Met Ser Cys Cys Gly Gly Asn Cys Gly Cys Gly Ser Gly Cys Lys Cys
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Gly Asn Gly Cys Gly Gly Cys Lys Met Tyr Pro Asp Phe Ser Tyr Thr
20 25 30

Glu Ser Thr Thr Thr Glu Thr Leu Ile Leu Gly Val Gly Pro Glu Lys
35 40 45

Thr Ser Phe Gly Ser Met Glu Met Gly Glu Ser Pro Ala Glu Asn Gly
50 55 60

Cys Lys Cys Gly Ser Asp Cys Lys Cys Asp Pro Cys Thr Cys Ser Lys
65 70 75 80

<210> 19
<211> 78
<212> PRT
<213> Silene vulgaris
<400> 19

Met Ser Cys Cys Asn Gly Asn Cys Gly Cys Gly Ser Ala Cys Lys Cys
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Gly Ser Gly Cys Gly Gly Cys Lys Met Phe Pro Asp Phe Ala Glu Gly
20 25 30

Ser Ser Gly Ser Ala Ser Leu Val Leu Gly Val Ala Pro Met Ala Ser
35 40 45

Tyr Phe Asp Ala Glu Met Glu Met Gly Val Ala Thr Glu Asn Gly Cys
50 55 60

Lys Cys Gly Asp Asn Cys Gin Cys Asn Pro Cys Thr Cys Lys
65 70 75

<210> 20
<211> 80

4982-13-SEQ-LISTING.txt

<212> PRT
<213> Oryza sativa

<400> 20

Met Ser Cys Cys Gly Gly Asn Cys Gly Cys Gly Ser Ser Cys Gln Cys
1 5 10 15

Gly Asn Gly Cys Gly Gly Cys Lys Tyr Ser Glu Val Glu Pro Thr Thr
20 25 30

Thr Thr Thr Phe Leu Ala Asp Ala Thr Asn Lys Gly Ser Gly Ala Ala
35 40 45

Ser Gly Gly Ser Glu Met Gly Ala Glu Asn Gly Ser Cys Gly Cys Asn
50 55 60

Thr Cys Lys Cys Gly Thr Ser Cys Gly Cys Ser Cys Cys Asn Cys Asn
65 70 75 80

<210> 21

<211> 69

<212> PRT

<213> Arabidopsis thaliana

<400> 21

Met Ser Ser Asn Cys Gly Ser Cys Asp Cys Ala Asp Lys Thr Gln Cys
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Val Lys Lys Gly Thr Ser Tyr Thr Phe Asp Ile Val Glu Thr Gln Glu
20 25 30

Ser Tyr Lys Glu Ala Met Ile Met Asp Val Gly Ala Glu Glu Asn Asn
35 40 45

Ala Asn Cys Lys Cys Lys Cys Gly Ser Ser Cys Ser Cys Val Asn Cys
50 55 60

Thr Cys Cys Pro Asn
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<210> 22

<211> 65

<212> PRT

<213> Musa acuminata

<400> 22

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1 5 10 15

4982-13-SEQ-LISTING.txt

Lys Lys Gly Asn Ser Tyr Gly Ile Asp Ile Val Glu Thr Glu Lys Ser
 20 25 30

Tyr Val Asp Glu Val Ile Val Ala Ala Glu Ala Ala Glu His Asp Gly
 35 40 45

Lys Cys Lys Cys Gly Ala Ala Cys Ala Cys Thr Asp Cys Lys Cys Gly
 50 55 60

Asn
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<210> 23
 <211> 63
 <212> PRT
 <213> Actinidia deliciosa

<400> 23

Met Ser Asp Lys Cys Gly Asn Cys Asp Cys Ala Asp Ser Ser Gin Cys
 1 5 10 15

Val Lys Lys Gly Asn Ser Ile Asp Ile Val Glu Thr Asp Lys Ser Tyr
 20 25 30

Ile Glu Asp Val Val Met Gly Val Pro Ala Ala Glu Ser Gly Gly Lys
 35 40 45

Cys Lys Cys Gly Thr Ser Cys Pro Cys Val Asn Cys Thr Cys Asp
 50 55 60

<210> 24
 <211> 62
 <212> PRT
 <213> Oryza sativa

<400> 24

Met Ser Asp Lys Cys Gly Asn Cys Asp Cys Ala Asp Lys Ser Gin Cys
 1 5 10 15

Val Lys Lys Gly Thr Ser Tyr Gly Val Val Ile Val Glu Ala Glu Lys
 20 25 30

Ser His Phe Glu Glu Val Ala Ala Gly Glu Glu Asn Gly Gly Cys Lys
 35 40 45

Cys Gly Thr Ser Cys Ser Cys Thr Asp Cys Lys Cys Gly Lys
 50 55 60

<210> 25

4982-13-SEQ-LISTING.txt

<211> 63
<212> PRT
<213> Gossypium hirsutum

<400> 25

Met Ser Asp Arg Cys Gly Asn Cys Asp Cys Ala Asp Arg Ser Gln Cys
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Thr Lys Gly Asn Ser Asn Thr Met Ile Ile Glu Thr Glu Lys Ser Tyr
20 25 30

Ile Asn Thr Ala Val Met Asp Ala Pro Ala Glu Asn Asp Gly Lys Cys
35 40 45

Lys Cys Gly Thr Gly Cys Ser Cys Thr Asp Cys Thr Cys Gly His
50 55 60

<210> 26

<211> 60

<212> PRT

<213> Picea glauca

<400> 26

Met Ser Ser Asp Cys Gly Asn Cys Asp Cys Ala Asp Lys Ser Gln Cys
1 5 10 15

Thr Lys Lys Gly Phe Gln Ile Asp Gly Ile Val Glu Thr Ser Tyr Glu
20 25 30

Met Gly His Gly Gly Asp Val Ser Leu Glu Asn Asp Cys Lys Cys Gly
35 40 45

Pro Asn Cys Gln Cys Gly Thr Cys Thr Cys His Thr
50 55 60

<210> 27

<211> 84

<212> PRT

<213> Arabidopsis thaliana

<400> 27

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Cys Gly Cys Pro Ser Pro Cys Pro Gly Gly Asn Ser Cys Arg Cys Arg
20 25 30

Met Arg Glu Ala Ser Ala Gly Asp Gln Gly His Met Val Cys Pro Cys
35 40 45

4982-13-SEQ-LISTING.txt

Gly Glu His Cys Gly Cys Asn Pro Cys Asn Cys Pro Lys Thr Gln Thr
50 55 60

Gln Thr Ser Ala Lys Gly Cys Thr Cys Gly Glu Gly Cys Thr Cys Ala
65 70 75 80

Ser Cys Ala Thr

<210> 28
<211> 85
<212> PRT
<213> *Arabidopsis thaliana*

<400> 28

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Cys Gly Cys Pro Ser Pro Cys Pro Gly Gly Glu Ser Cys Arg Cys Lys
20 25 30

Met Met Ser Glu Ala Ser Gly Gly Asp Gln Glu His Asn Thr Cys Pro
35 40 45

Cys Gly Glu His Cys Gly Cys Asn Pro Cys Asn Cys Pro Lys Thr Gln
50 55 60

Thr Gln Thr Ser Ala Lys Gly Cys Thr Cys Gly Glu Gly Cys Thr Cys
65 70 75 80

Ala Thr Cys Ala Ala
85

<210> 29
<211> 88
<212> PRT
<213> *Petunia hybrida*

<400> 29

Met Ala Asp Leu Arg Gly Ser Ser Ala Ile Cys Asp Glu Arg Cys Gly
1 5 10 15

Cys Pro Ser Pro Cys Pro Gly Gly Val Ala Cys Arg Cys Ala Ser Gly
20 25 30

Gly Ala Ala Thr Ala Gly Gly Asp Met Glu His Lys Lys Cys Pro
35 40 45

4982-13-SEQ-LISTING.txt

Cys Gly Glu His Cys Gly Cys Asn Pro Cys Thr Cys Pro Lys Ser Glu
 50 55 60

Gly Thr Thr Ala Gly Ser Gly Lys Ala His Cys Lys Cys Gly Pro Gly
 65 70 75 80

Cys Thr Cys Val Gin Cys Ala Ser
 85

<210> 30
 <211> 76
 <212> PRT
 <213> Zea mays

<400> 30

Met Gly Asp Asp Lys Cys Gly Cys Ala Val Pro Cys Pro Gly Gly Lys
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 20 25 30

Cys Gly Cys Gly Glu His Cys Glu Cys Ser Pro Cys Thr Cys Gly Arg
 35 40 45

Ala Thr Met Pro Ser Gly Arg Glu Asn Arg Arg Ala Asn Cys Ser Cys
 50 55 60

Gly Ala Ser Cys Asn Cys Ala Ser Cys Ala Ser Ala
 65 70 75

<210> 31
 <211> 81
 <212> PRT
 <213> Triticum aestivum

<400> 31

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 1 5 10 15

Thr Gly Cys Arg Cys Thr Ser Ala Arg Ser Gly Ala Ala Ala Gly Glu
 20 25 30

His Thr Thr Cys Gly Cys Gly Glu His Cys Gly Cys Asn Pro Cys Ala
 35 40 45

Cys Gly Arg Glu Gly Thr Pro Ser Gly Arg Ala Asn Arg Arg Ala Asn
 50 55 60

Cys Ser Cys Gly Ala Ala Cys Asn Cys Ala Ser Cys Gly Ser Ala Thr
 Page 14

Ala

<210> 32
<211> 87
<212> PRT
<213> Oryza sativa

<400> 32

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1 5 10 15

Thr Gly Cys Arg Cys Ala Ser Ser Ala Arg Ser Gly Gly Gly Asp His
20 25 30

Thr Thr Cys Ser Cys Gly Asp His Cys Gly Cys Asn Pro Cys Arg Cys
35 40 45

Gly Arg Glu Ser Gln Pro Thr Gly Arg Glu Asn Arg Arg Ala Gly Cys
50 55 60

Ser Cys Gly Asp Ser Cys Thr Cys Ala Ser Cys Gly Ser Thr Thr Thr
65 70 75 80

Thr Ala Pro Ala Ala Thr Thr
85